

**STATEMENT OF BASIS FOR PERMIT MODIFICATION  
MASON COUNTY – HARTSTENE POINTE WASTEWATER TREATMENT PLANT  
NPDES PERMIT NO. WA0038377**

This statement of basis explains the need to modify the discharge permit and provides the basis for changes to its limitations and conditions.

**I. GENERAL INFORMATION**

Permittee: Mason County Department of Community Development  
Courthouse Building 1  
411 N. 5<sup>th</sup>  
P.O. Box 578  
Shelton, WA 98584

Treatment Plant: Hartstene Pointe

Discharge Location: North End Hartstene Island, Case Inlet  
Latitude: 47° 17' 47" N  
Longitude: 122° 50' 42" W

**II. BASIS FOR KEEPING CONDITION S1.B, INTERIM TOTAL RESIDUAL CHLORINE LIMITS, EFFECTIVE**

NPDES Permit No. WA0038377, issued on March 24, 1995, by the Department of Ecology to Mason County Department of Community Development (Mason County), established final total residual chlorine limitations of 0.14 milligrams per liter (mg/l) for the monthly average and 0.36 mg/l for the daily maximum. These final limitations, listed in Condition S1.C, became effective on April 24, 1998. In addition, Condition S9 requires Mason County to dechlorinate the effluent, unless a new outfall is designed and constructed, so that water quality-based limitations are not exceeded.

Mason County has submitted a draft engineering report, titled, *Hartstene Pointe, Amendment to Engineering Report Wastewater Treatment Facilities*, to the Department of Ecology for review. The draft report, dated May 1998, was written by the engineering consulting firm Gray & Osborne, Inc. The following passages have been taken from the draft report:

*The WDFW (Washington State Department of Fish and Wildlife) has raised shellfish protection issues with the Hartstene Pointe WWTF (Wastewater Treatment Facility) outfall since the summer of 1991. WDFW's initial attempts were through the State Environmental Policy Act and Hydraulic Project Approval Review. In correspondence to the Department of Ecology, February 6, 1995, WDFW commented that the shellfish resource decertification resulting from the outfall had not been addressed. This letter states that "in order for the proposal to be consistent with our no net loss habitat policy, every reasonable effort should be taken to avoid conditioned, restricted, or prohibited harvest of commercial and recreational shellfish beds.*

*According to the DNR (Department of Natural Resources), the lost value of the standing geoduck crop is estimated to be \$34 million based in 1993 dollars. This loss estimate is based on the January to May 1995 average lease contract value of \$7.35 per pound of geoduck. According to the 1994 WDFW Geoduck Tract Atlas, the standing crop of these geoduck resources is estimated to be 4.66 million pounds. Therefore, close to \$685,000 in lease revenues are lost to the State annually due to shellfish closure(s) in the area of the outfall. This figure is based on an approximate 2 percent annual harvest rate. Other shellfish beds in the immediate vicinity include hardshell clams and oysters. No analysis has been performed for these aquatic resources.*

*In addition, DNR holds the lease on the property for the Hartstene Pointe WWTF outfall (No. 9635). This lease will expire in the year 2001, at which time, Mason County will have the option of renewing the lease. According to DNR, there will be new language added to new shoreline leases that will include fees for resource damage. A recent calculation for the damage to shellfish beds adjacent to the Hartstene Pointe WWTF outfall is approximately \$685,000 per year. Although, this estimated fee may be higher depending on the current price of geoducks. Negotiation on the new lease will begin approximately six months before the existing lease expires.*

The Department of Fish and Wildlife required Mason County to complete additional studies on upland alternatives until all reasonable alternatives to a marine discharge had been exhausted. Gray and Osborne, Inc. performed the engineering analyses to evaluate alternative land and marine discharges. Gray and Osborne, Inc. evaluated several alternatives, including upland disposal. The draft report's recommended alternative is to construct a new outfall into Pickering Passage. This area does not have identified geoduck beds.

The Department of Ecology used a computer model to calculate the dilution of the wastewater treatment plant effluent with the receiving water at the proposed location in Pickering Passage. The reasonable potential analysis calculates that water quality-based limitations for chlorine and ammonia will not be required with the new outfall. With construction of the new outfall dechlorination will not be necessary. If Mason County were to design, construct, and operate dechlorination for the present discharge location, it would be used for a relatively short time until the new outfall is constructed.

Because the time of construction for the new outfall depends upon securing funding and the necessary permits and approvals and the new outfall will not require effluent dechlorination, the Department of Ecology is proposing to modify the permit. This modification will eliminate the requirement to design, construct, and operate a dechlorination system because it will not be necessary with the new outfall.

The modification will also eliminate Condition S1.C that became effective April 24, 1998. This condition, with the previously identified water quality-based limitations for chlorine, has the potential to be exceeded with the discharge at the present location. The permit still requires Mason County to minimize the quantity of chlorine used and still meet fecal coliform bacteria limitations.

Because the discharge has the potential to exceed the water quality standards for chlorine, Ecology and Mason County will develop a schedule for constructing a new outfall. The schedule will be established in an administrative order.

### III. PROPOSED ACTION

Modify Condition S1 of NPDES Permit No. WA0038377 to eliminate Part C (Final Total Residual Chlorine Limits).

Modify Condition S9 (Dechlorination Installation) according to the following:

#### S9. COMPLIANCE WITH CHLORINE WATER QUALITY-BASED LIMITATIONS

A draft amendment to the engineering report reviewed by the Department of Ecology proposes to construct a new outfall in Pickering Passage. The impetus to construct a new outfall is because of the harvest of clams, not compliance with the state water quality standards. If the Permittee does not move the outfall the Permittee will be liable for a proposed economic clam harvest loss of \$34 million total or \$685,000 annually.

The original Condition S9 required the Permittee to design, install and operate a dechlorination system unless a new outfall is designed and constructed that would eliminate the need for chlorine limitations. Dilution modeling and the reasonable potential analysis indicate water quality-based limitations for chlorine will not be required for the proposed outfall. Therefore, the need to dechlorinate is also not necessary with the new construction.

The timing for constructing a new outfall will depend upon the Permittee securing funding and the necessary permits. The Permittee is required to minimize the use of chlorine and still comply with the limitations for fecal coliform bacteria.